The Bander's Forum

In response to A. Marguerite Baumgartner's request for information on the phenomenon of sex reversals in wild birds "Sex Reversal in Banded Cardinal", (*North American Bird Bander* 11(1):11, 1986) I would like to report a similar experience and a plausible explanation offered by Dr. Kenneth Parkes of the Carnegie Museum, Pittsburgh, Pennsylvania.

This year (1986) marks the fifteenth year (1972-1986) that I and a colleage (Dr. John Faaborg, of the University of Missouri-Columbia) have sampled a dry forest bird community each winter in the Guanica State Forest located in western Puerto Rico. We have placed special emphasis on North American migrants (mostly parulinae). On January 27, 1981, I recaptured an American Redstart (*Setophaga ruticilla*) banded (122-63961) by Faaborg on February 3, 1974. The bird was at least 7 years old when I recaptured it and had made a minimum of 15 trips (Fall of 1973 to the Fall of 1980) with 7 return flights to the mainland (Spring of 1974 to the Spring of 1980).

I was impressed with this recapture, marveling that a 7 g bird could have survived the rigors of migration and so many long-distance flights over the years. However, there was a glaring inconsistancy with this record. Faaborg had banded it as an adult FEMALE. I had recorded it as an adult MALE because it exhibited a large patch of black feathers on the throat and upper breast. I changed the sex determination to "adult female" after comparing Faaborg's and my mensural data (weight: 6.8 g and 6.7 g, respectively; chord: 61 mm and 62.1 mm, respectively). Chandler Robbins' guide to "Ageing and Sexing Wood Warblers in the Fall" (EBBA News 27 (5): 199-215) supported the probability that this individual was a female. I surmised that the plumage must have been aberrant and decided to write to Dr. Parkes for an explanation. He responded immediately, stating that this was a good example of the effects of natural aging in birds. Female birds retain "female characteristics" through high levels of estrogen. However, with natural ageing, estrogen levels drop and females begin to show "male characteristics", i.e., male plumage in dimorphic species, male song, male behavior, etc. Mrs. Baumgartner's 4-yr-old Cardinal appears to be additional proof of this common (Parkes, in litt.) occurrence. I suspect that if more banders would review their longevity records of female birds (i.e., repeats of female birds over many years), we would find many more examples of sex reversal in wild birds.

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To those who have taken issue with the adjective chosen to describe my Downy Woodpecker plumage, I submit the dictionary definition of aberrant: "differing from the normal or usual". He was unusual for the observers, certainly, though apparently not for the bird involved.

However, I have examined both photos at the nest, and slides of a young bird definitely declared a Downy. My bird showed far more red than an oversize patch at the back of the head. The feathers of the entire crown were heavily tipped with red, as compared with half or less as shown on photos and slides. My bird also exhibited other plumage markings very similar to descriptions of the Ladderback in Bent and our arsenal of field guides.

The most enlightening comments came from Kathy Klimkiewicz, who remarked that this juvenile plumage is of very short duration, and therefore is seldom seen except at a nest.

Though between us (AMB - FMB) we have spent over a hundred years in field ornithology and window watching where this species is commonplace, we have never seen a Downy with so even a blend of characteristics of two species, and this is certainly unusual, if not aberrant.

Written descriptions seem to lack the fine lines of distinction; better seen than described. I made no bid for a new bird for our area, or for a hybrid. But it seemed worthy of comment as a cautionary note for over-zealous birders. In the western part of Inland's region, of which we are a part, one could easily misidentify such a bird in the field.

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The Banders' Forum

"Sex Reversal" in Banded Cardinal (Reverted)

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The above title, referring to a dramatic change in plumage of Northern Cardinal 891-50186, appeared (less final word) in the Jan.-Mar. 1986 issue of NABB, p. 11. Although I have been reminded that the title is an overstatement, since true sex reversal can be determined only by examination of gonads, I still regard this encounter an unusual and interesting experience in the life of a bird bander.

The condition, even though misnamed, aroused so much speculation among readers, that I offered the opportunity to collect and examine my bird — should it ever be recaptured — to the zoology staff of two of our state universities. Neither responded, and since the bird was presumably in poor health, the episode appeared a closed subject.

However, as of August 9, 1986, my Cardinal reappeared in the same trap, a R-5, almost a year to the day since the last encounter. She was in a curious state of molt, midway between male and female plumages, but definitely reverting to her original sex pattern. She was vigorous and appeared in good physical condition, and we were glad no one had accepted our invitation to terminate her checkered life.

My husband, Frederick M. Baumgartner, bears witness. Together we compared the plumage, tract by tract, with the written description in Bent's Life Histories, and with color plates of a dozen reference books. Though she had not lost all of her red male feathers, she was predominantly a fawn-colored female again.

When released at our front door, this bird flew directly and purpose-fully downslope to the edge of the woods a quarter-mile distant, paralleling one of our wooded hollows. She has reappeared at our traps on November 25, 1986, and January 10 and 13, 1987. Each time she followed precisely the same route as in 1985, and we firmly expect to find a Cardinal nest in that area after the leaves have fallen.